REMARKS

Reconsideration and allowance are respectfully requested.

Examiners Colbert and Vizvary are thanked for the interview conducted on February 12, 2009, with Inventor Hakan Winbom, OMX Patent Engineer Tore Nordlund, and Attorney John Lastova. The inventor described his educational and extensive work experience in data processing systems and trading systems and explained the problems solved by the present invention. Several distinctions were identified between what was recited in claim 4 and the combination of Ferstenberg in view of Wang.

During the interview, the inventor explained the non-limiting illustration provided in the last response, which is repeated below for convenience. The primary site receives and stores both quotes (from market makers) and orders (from investors). The Examiners indicated their familiarity with these terms, but may find helpful the definitions in the specification in the paragraph bridging pages 3 and 4. It is important to understand the difference between a trading exchange that stores many buy/sell trade orders and even more market maker buy/sell quotes in each order book corresponding to an instrument where there is a small spread between the lowest sell and highest buy or bid and where deals are made when a buy and sell match and a commodities negotiation system like Ferstenberg where the system facilitates an iterative negotiation process between two parties.
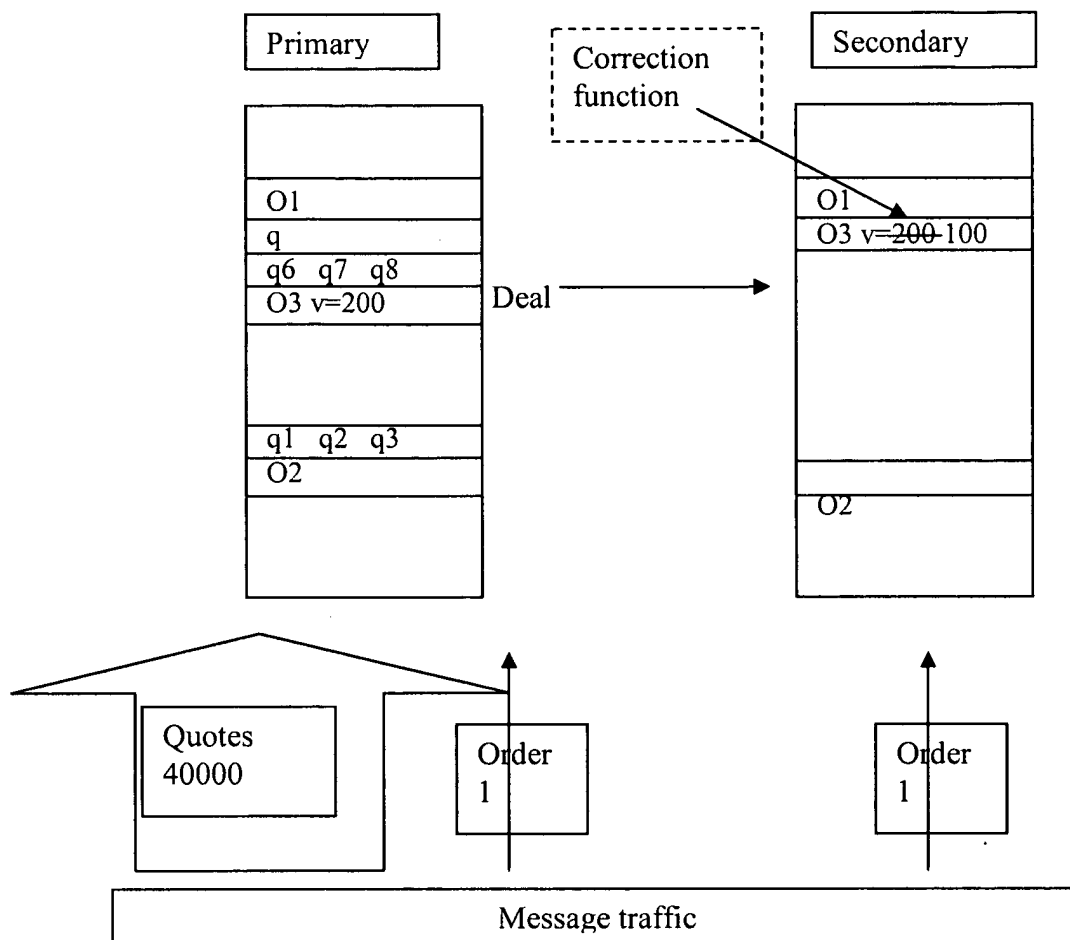
One of the reasons for maintaining a secondary back-up site is for the trading exchange to survive major disasters. To do this effectively, one would assume that all of the data from the primary site needs to be provided to the secondary site. A problem with this assumption and with traditional fail-over systems is the sheer volume of information used in some trading systems. Given the large volume, practical bandwidth and processing resources limit the

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distance the information can be transferred. The dilemma then is the desire to maintain a larger (rather than shorter) geographical distance between the sites with the hope that only one site would be significantly undermined in the event of a major disaster versus the reality of practical bandwidth and resources limitations. The inventor in this application solved this dilemma.

Consider a non-limiting example where the quote/order rate is approximately 40,000 to 1, as illustrated in the figure below. Market makers usually generate new quotes at least every second for each of the instruments traded on the primary site exchange that they are responsible for. At this kind of re-quote rate, the inventor realized that it is not necessary to transfer the quotes to the secondary site and update the secondary site orderbook because the market makers will generate another re-quote if the primary site fails. Order and deal information from the primary site is stored at the secondary site but not quote information. As a result, the inventor determined that substantial bandwidth and resources can be saved by not storing the huge quote volumes at the secondary site. In addition, a corrective function at the secondary site is provided that uses the deal (match) information at the primary site to update the orders at the secondary site. In the figure below, orders O1 and O2 are stored at both the primary and secondary sites, but not the 40,000 quotes (q).
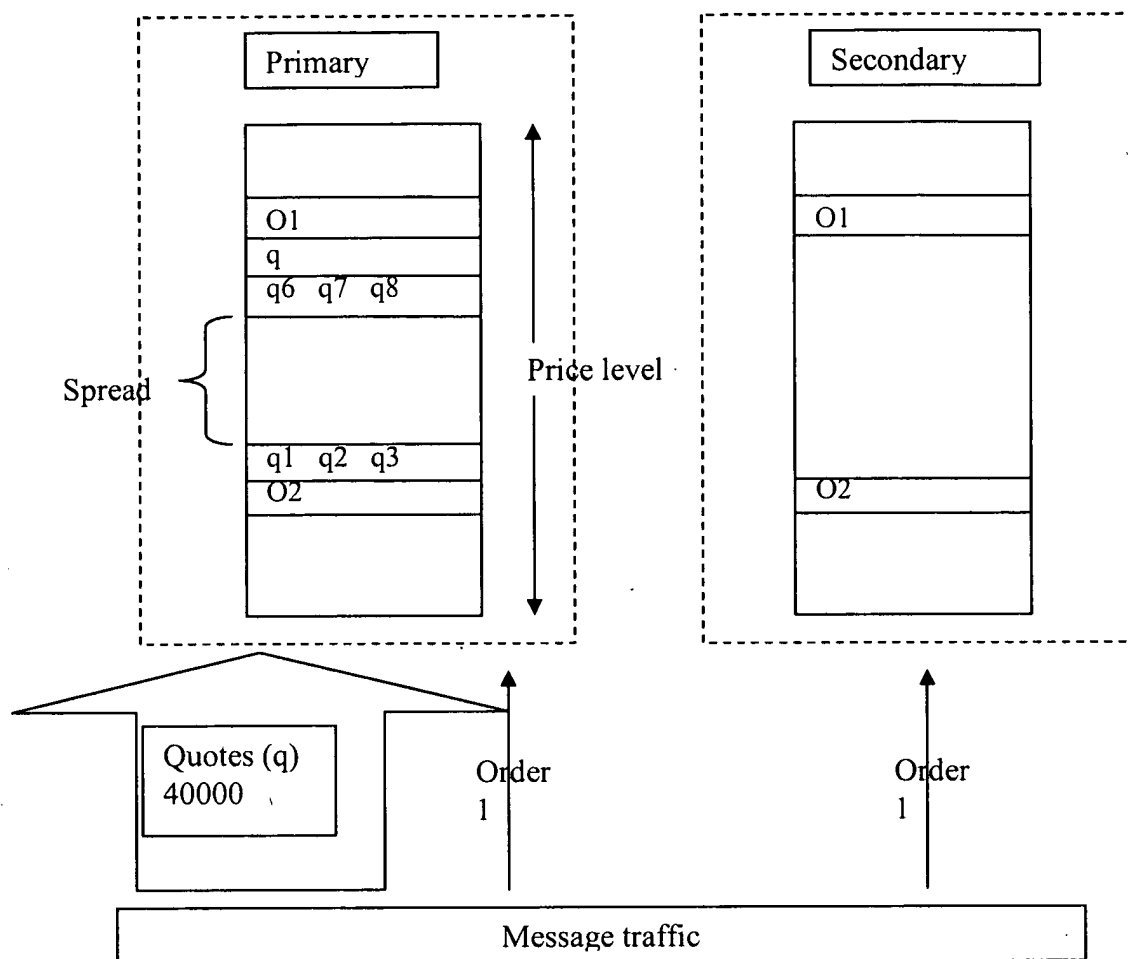
The following figure illustrates the updating procedures implemented in one example embodiment by a corrective function, at the secondary site. A third order O3 arrives and matches a portion of quotes q6-q8 which are on the same price level (in this example, pro-rata matching is used). Specifically, order O3 is for a volume of 200 contracts, and quotes q6-q8 have a total volume of 100. After the deal (match), order O3 has 100 contracts left, which means that the secondary site needs updating. A corrective function implemented by the secondary site computer uses the primary site deal (match) information to update order O3 to a volume of 100 contracts.

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Primary	Correction function	Secondary
O1		O1
q		O3 v=~~200~~ 100
q6 q7 q8		
O3 v=200	Deal →	
q1 q2 q3		
O2		O2

Quotes 40000   Order 1   Order 1

Message traffic

Claims 1-23 remain rejected under 35 U.S.C. §103 as allegedly being unpatentable based on Ferstenberg in view of Wang. This rejection is respectfully traversed.

Ferstenberg discloses a computer system that facilitates a negotiation of financial commodities between participants using e-agents (software programs) representing the participants and a negotiation protocol. The e-agent program for a participant encodes goals and objectives of the participant and performs electronic negotiations in order to achieve the objectives of the participant. As explained at the interview, Ferstenberg lacks many claim features including (but not limited to): quotes from market makers, buy/sell orders from traders, deals based on the quotes and orders, providing a secondary site, storing replicas of orders and

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deals formulated at the primary site, and using the deals stored at the secondary site to update the orders stored at the secondary site.

Wang describes a generic site failover system. Specifically, a controller automatically configures a second host computer to use the data of a first host computer and to provide additional computational resources. There is no distinction between what data is stored at the primary site and what data is stored at the secondary site. Rather, Wang teaches that all data or parts of certain data may be replicated to the secondary site (col.9, lines 36-56 and col. 10, line 58 to col. 11, line 65). The "data" in Wang comprises operating system information, application program information, and application program data. But Wang does not describe any intelligent selection and transfer of a particular subset of data to the secondary site in combination with using that subset of data to update a larger data set in order to save bandwidth and hardware resources.

Combining Ferstenberg with Wang produces a electronic exchange system with e-agents and a secondary site that, after receiving data from the primary site, could take over if the primary site fails or provide additional computational resources if necessary. But this combination provides no teaching or suggestion of quotes from market makers, buy/sell orders from traders, deals based on the quotes and orders, storing at the secondary site computer replicas of the orders and deals at the primary site without the quote information, and then using the stored deal information to update orders at the secondary site.

Neither reference teaches such a technological approach in order to reduce bandwidth and resource requirements while at the same time providing a fail safe system. Indeed, Wang teaches the conventional fail safe approach described in the background of this application of sending a "mirrored copy of each volume of data of the primary host computer 110 that is mirrored to a

corresponding volume of data that is accessible to the secondary host computer 120." Column 9, lines 49-54. In the example illustration above, the mirror copies would include the 40,000 quotes along with the deal and order information. The bandwidth and resource drain in the Ferstenberg-Wang system would be much greater than that required by the claimed technology.
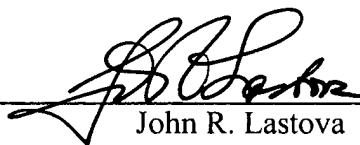
In an effort to put this application in condition for allowance, the claims are amended based on suggestions from the Examiners during the interview. Specifically, amendments are made to avoid possible §101 issues raised after the recent *In re Bilski* decision and to indicate that the primary and secondary site computers can communicate over a communications link.

The application is in condition for allowance. An early notice to that effect is requested.

Respectfully submitted,

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